

**KEY BY LEAF DESCRIPTION FOLLOWED BY FLOWER
DESCRIPTION
PLANT ID KEY (TO FAMILY AND SOMETIMES SPECIES)
FOR ARCHES NATIONAL PARK**

Key © Alicia Lafever

EVERGREEN TREES

1. Leaves opposite or in whorls, evergreen scale-like leaves –
Cupressaceae (Cypress)
2. Leaves spirally arranged, needles in groups of 2 – **Pinaceae (Pine)**

EVERGREEN SHRUBS

1. Leaves are reduced to small triangular teeth at joints, green jointed stems, shrublike – **Ephedraceae (Jointfir)**

DECIDUOUS TREES

1. Leaves opposite
 - A. Leaves simple
 - i. Flowers with no petals, 4 yellow to whitish lobed sepals –
Oleaceae (Olive)
 - ii. Flowers with 5 united white petals and 5 united sepals –
Bignoniaceae (Catalpa)
 - B. Leaves compound
 - i. No petals, 4 -5 greenish, yellow sepals –
Aceraceae (Maple) – Boxelder (*Acer negundo*)
2. Leaves alternate
 - A. Leaves scale-like, 5 fragrant white to lavender petals, 5 sepals, flowers borne in elongated clusters – **Tamaricaceae (Tamarisk)**
 - B. Leaves simple
 - i. Flowers with 0 petals –
 - a. Flowers with no petals, shrublike, 2 to 8 greenish, yellow sepals – **Fagaceae (Beech)** – (also listed under shrubs)
 - b. Flowers with no petals, borne in axillary clusters, yellow or yellow-green sepals (generally 4) – **Elaeagnaceae (Oleaster)**
 - c. Flowers with 0 petals; 4-8 green sepals; flowers borne in clusters - **Ulmaceae (Elm)**
 - ii. Flowers with no petals, 0-4 sepals, stamens 1 to many; borne in catkins
 - a. Male (staminate) flowers and female (pistillate) flowers on separate trees. Borne in catkins. No sepals, greenish, yellow – **Salicaceae (Willow)**

- b. Male (staminate) flowers and female (pistillate) flowers on the same tree. Borne in catkins. Staminate flowers have 0-4 sepals, pistillate flowers have no sepals. Greenish, yellow – **Betulaceae (Birch)**
- c. Male (staminate) flowers and female (pistillate) flowers on the same tree. Borne in catkins. No petals, 4 sepals, 4 stamens, 1 pistil – **Moraceae (Mulberry)** – *Morus alba*
- d. Male (staminate) flowers and female (pistillate) flowers on different trees. Borne in catkins. No petals, 4 sepals, 4 stamens, 1 pistil – **Moraceae (Mulberry)** – *Morus rubra*
- B. Leaves compound, 5 white or pale pink petals, 5 sepals – **Fabaceae (Pea)** – *Robinia pseudoacacia*

SHRUBS

- 1. Leaves opposite
 - A. Leaves simple
 - i. Flowers with 0 petals –
 - a. Yellow flowers with no petals, 4 yellow sepals – **Rosaceae (Rose)**– *Coleogyne ramosissima* (others in shrubs -alternate, simple, 0 petals; shrubs – alternate, simple, 5 petals; and shrubs – alternate, compound, 5 petals)
 - b. Plants parasitic on branches of trees and shrubs; without chlorophyll; fragile-jointed with swollen jointed nodes; leathery (often scale-like) leaves; flowers with 0 petals; 2-5 sepals; staminate and pistillate flowers - **Viscaceae (Mistletoe)**
 - ii. Flowers with 4 distinct petals, 4 sepals –
 - a. 4 distinct small white petals in terminal cymes, 4 very small sepals. Not commonly seen. - **Cornaceae (Dogwood)**: *Cornus sericea* var. *sericea*
 - b. Flowers with 4 white clawed petals, 4 sepals - **Saxifragaceae (Saxifrage)** – *Fendlera rupicola* (others in shrubs-alternate, simple)
 - iii. Flowers with 5 united petals, 5 small sepals –
 - a. Leaves oval, flowers pink, tubular and flare open at the mouth; flowers solitary or in pairs – **Caprifoliaceae (Honeysuckle)**
 - b. Leaves narrow, flowers purple – **Lamiaceae (Mint)** – *Poliomintha incana*
- 2. Leaves alternate
 - A. Leaves simple
 - i. Flowers appear to be a single flower, but are composed of several flowers; flowers can be yellow, white, purple, pink or greenish– some **Asteraceae (Sunflower)**

- ii. Flowers with no petals
 - a. leaves bluish, small, 2-5 green, yellow, or brown sepals – **Chenopodiaceae (Goosefoot)** (others in subshrubs and herbs)
 - b. 3 to 6 petaloid whitish sepals - **Polygonaceae (Buckwheat)**– *Eriogonum bicolor*, *Eriogonum microthecum*, *Eriogonum leptocladon* (others in subshrubs and herbs – alternate, simple and herbs - basal, simple)
 - c. 5 yellowish, brownish sepals – **Rosaceae (Rose)** – *Cercocarpus* (others in shrubs -alternate, simple, 5 petals; shrubs – alternate, compound, 5 petals; and shrubs -opposite, simple, 0 petals)
 - d. 2 to 8 greenish, yellow sepals – **Fagaceae (Beech)** – also listed under trees
 - iii. Flowers with 4-5 petals, 4-5 sepals -
 - a. 4 or 5 whitish green petals or lavender petals, distinct, or absent; 4 or 5 united sepals; flowers grow in clusters in the angle between the leaf and the stem; shrub 3-8 feet tall - **Rhamnaceae (Buckthorn)** *Rhamnus betulifolia*, *Ceanothus greggii*
 - b. Flowers with 5 (4) white petals often smaller than the sepals, 5 sepals, mostly petaloid – **Saxifragaceae (Saxifrage)** - *Ribes inerme* (others in shrubs – opposite, simple)
 - c. 5 petals, 5 sepals, flowers white, cream, yellow, or pink – **Rosaceae (Rose)** – *Amelanchier*, *Holodiscus*, *Petrophytum*, *Physocarpus*, *Purshia* (others in shrubs -alternate, simple, 0 petals; shrubs – alternate, compound, 5 petals; and shrubs - opposite, simple, 0 petals)
 - d. 5 yellow petals, 5 sepals – **Anacardiaceae (Cashew)** – some *Rhus aromatica*
- B. Leaves compound
- i. Flowers with 0 petals, 5 sepals; yellow – **Fabaceae (Pea)** – *Parryella filifolia*
 - ii. Flowers with 5 yellow petals, 5 sepals – **Anacardiaceae (Cashew)** – *Rhus glabra*, some *Rhus aromatica*, and *Toxicodendron rydbergii* - rarely simple
 - iii. Flowers with 5 pink (rarely white) petals, sepals 5 – **Rosaceae (Rose)** – *Rosa woodsii* (others in shrubs -alternate, simple, 0 petals; shrubs – alternate, simple, 5 petals; and shrubs -opposite, simple, 0 petals)
 - iv. Flowers with 6 yellow petals, usually 6 sepals – **Berberidaceae (Barberry)**

SUBSHRUB

1. Leaves whorled
 - A. Leaves simple
 - i. 4 lobed funnellform greenish-yellow petals, 4-8 lobed sepals, minute or lacking - **Rubiaceae (Madder)** – *Galium multiflorum* (others in herbs -whorled, simple, 4 petals)
2. Leaves basal
 - A. Leaves simple
 - i. 0 petals, 3 to 6 petaloid whitish sepals, woolly leaves – **Polygonaceae (Buckwheat)**– *Eriogonum ovalifolium* (others in shrubs and herbs-alternate, simple and herbs-basal, simple)
3. Leaves opposite
 - A. Leaves simple
 - i. Flowers with 5 petals, 5 sepals
 - a. 5 white to cream tubular petals, 5 sepals – some **Polemoniaceae (Phlox)** – *Leptodactylon watsonii* (others in herbs, opposite, simple: *Phlox*; and herbs, alternate, simple: *Gilia*)
4. Leaves alternate
 - A. Leaves simple
 - i. Yellow flowers appear to be a single flower, but are composed of several flowers – **Asteraceae (Sunflower)** - some *Gutierrezia* (others in shrubs), some *Haplopappus* (others in herbs), some *Perityle* (others in herbs), some *Xlyorhiza* (others in herbs)
 - ii. Flowers with no petals
 - a. leaves bluish, small, 2-5 green, yellow, or brown sepals – **Chenopodiaceae (Goosefoot)** (others in shrubs and herbs)
 - b. 0 petals, 3 to 6 petaloid whitish sepals – **Polygonaceae (Buckwheat)**– *Eriogonum jonesii* (others in shrubs, subshrubs, basal, simple) and herbs-alternate, simple and herbs-basal, simple)
 - iii. Flowers with 3 distinct petals, (the upper 2 pink or pink purple petals usually free, the lower one forming a yellow keel and often fringed, the petals are usually joined to the stamens; 5 distinct sepals, the 2 inner ones larger and often petaloid (the 3 outer sepals are usually green and the other inner ones are petal-like), flowers in racemes, several-flowered; milky stems; thorny – **Polygalaceae (Milkwort)** – *Polygala subspinososa*
 - iv. Flowers with 5 petals, 5 sepals –
 - a. 5 petals, 5 sepals, Flowers small, typically pink, tubular united petals, leaves appear clustered – some **Boraginaceae (Borage)**: *Tiquilia* – (others in herbs)

CACTUS

1. No leaves; spines, numerous petals, sepals and stamens; showy; red, pink, purple, or yellow – **Cactaceae (Cactus)**

SPOROPHYTES (Spore-bearing)

1. Stems typically hollow, jointed, ribbed longitudinally; leaves whorled, small, scalelike, microphyllous – **Equisetaceae (Horsetail)**
2. Plants with scaly or hairy, creeping rhizomes; leaves coiled in the bud forming fiddleheads, leaves simple or compound, often hairy or scaly – **Polypodiaceae (Fern)**

PARASITIC HERBS LACKING CHLOROPHYLL

1. Fleshy purplish, brownish, or yellowish white stems, leaves alternate, reduced and scalelike, 5 lobed united tubular purplish, reddish, or yellowish petals with an upper and lower lip, 5 lobed united sepals – **Orobanchaceae (Broomrape)**

GRASSES AND GRASS-LIKE HERBS (SOME OF THE MONOCOTS)

1. Leaves alternate, simple, 2-ranked, stems round, often with hollow internodes, swollen nodes; flowers individually small and inconspicuous; no petals, no sepals, typically 3 stamens (rarely 2 or 6); each flower has 2 bracts forming a spikelet – **Poaceae (Grass)**
2. Leaves simple, linear, sometimes reduced to bladeless sheaths, stems can have edges (*Scirpus* has rounded stems); petals and sepals lacking or reduced to bristles; the spike of reduced flowers forms a spikelet; grows in wet or moist soil – **Cyperaceae (Sedge)**
3. Stems not jointed; leaves sheathing, alternate or all basal; flowers with 3 petals, 3 sepals, membranous, greenish or brownish; stamens 6 (rarely 3), 1 pistil – **Juncaceae (Rush)**
4. leaves mainly basal, linear, sheathing at the base; flowers terminal spike, 3 greenish petals, 3 greenish or purplish sepals, the sepals and petals not well differentiated; perianth of 3 + 3 tepals; stamens commonly 6, 1 pistil; *Triglochin maritima* - perianth greenish-yellow – **Juncaginaceae (Arrowgrass)**
5. leaves alternate, long, linear, flat, sheathing; flowers densely crowded in terminal spikelike inflorescences; perianth lacking (0 petals, 0 sepals), 2-5 stamens; unisexual, pistillate and staminate spikes look like a hot-dog-on-a-stick; fruits: achene or nutlet; semiaquatic or aquatic - **Typhaceae (Cattail)**

HERBS

1. Leaves whorled
 - A. Leaves simple
 - i. 4 lobed white to green petals marked with green dots, flowers solitary or in cymes, 4 lobed sepals, leaves in whorls of 4 –

some **Gentianaceae (Gentian)** – *Swertia albomarginata*;
(*Centaurium* in herbs, opposite, simple, 4 or 5 petals, 4 or 5 sepals)

- ii. 4 lobed funnelform greenish-white or cream petals, 4-8 lobed sepals, minute or lacking - **Rubiaceae (Madder)** – *Galium triflorum* (others in subshrubs -whorled, simple, 4 petals)
- iii. 5 to numerous (1/8" wide) pale greenish/white tubular partly united petals borne in clusters, 5 parted sepals, 5 stamens, reddish stems - **Apocynaceae (Dogbane)** - *Apocynum cannabinum*

2. Leaves basal

A. Leaves simple, parallel veined, monocot

- i. Flowers with 3 to numerous petals, 3 sepals
 - a. 3 large white petals, 3 white or green sepals; petals in multiples on stalk with flowers oriented in a downward direction – **Agavaceae (Agave)**
 - b. Flowers with 3 to 8 small to medium white, pink, or purple petals oriented in an upward or outward direction, 3 sepals (commonly petaloid), small to medium white or pink flowers – **Liliaceae (Lily)**

B. Leaves simple, primarily basal in a rosette

- i. Flowers appear to be a single flower, but are composed of several flowers; flowers can be yellow, white, purple, pink or greenish – some **Asteraceae (Sunflower)**
- ii. Flowers with 0 petals, 3 to 6 petaloid whitish sepals - **Polygonaceae (Buckwheat)**– *Eriogonum gordonii*, *Eriogonum inflatum*, *Eriogonum wetherillii* (others in shrubs, subshrubs, and herbs-alternate, simple)
- iii. Flowers with 2 to 5 petals, 4 or 5 sepals
 - a. Flowers with 2 to 5 yellow petals, 5 green sepals, leaves basal and alternate – **Ranunculaceae – Buttercup** – *Ranunculus testiculatus*
 - b. Flowers with 4 united tiny white petals, 4 united tubular sepals - **Plantaginaceae (Plantain)**
 - c. Flowers with 5 united yellow lobed petals (upper pair shorter than the lower 3) , 4 or 5 sepals, at least partially united, leaves basal and alternate – **Scrophulariaceae (Figwort)** – *Verbascum thapsus* – (others in herbs (alternate, simple and opposite, simple)
 - d. Flowers with 5 lobed lavender to pink tubular petals with the corolla tube rimmed in yellow; 5 tubular lobed sepals- **Primulaceae (Primrose)**
 - e. Flowers with 4 white small to medium petals (not papery), 4 sepals, leaves basal and alternate – **Brassicaceae (Mustard)** – *Draba cuneifolia*
- iv. Flowers with 5 or more yellow petals, 5 sepals, leaves basal and alternate – **Ranunculaceae – Buttercup** - *Ranunculus cymbalaria*

- C. Leaves compound
- i. Flowers with 4 petals, 2 sepals
 - a. Yellow flowers with 4 petals, the 2 outer ones spreading at the apex, the 2 inner ones united – **Fumariaceae (Bleedingheart)**
 - ii. Flowers with 5 petals, 0-5 sepals, leaves basal
 - a. Pinkish, purple, leaves basal and opposite – **Geraniaceae (Geranium)** (also listed in herbs- leaves opposite, compound)
 - b. flowers with 5 petals; 5 sepals or lacking; petals can be yellow, white, or purple; petals and sepals are distinct; individual flowers are small and grouped in compound umbels; leaves basal (can have a few leaves alternate) and compound – **Apiaceae (Carrot)**
 - c. White or cream (less commonly pink or blue tinged) petals with spurs colored like the sepals, leaves basal and alternate – **Ranunculaceae – Buttercup** - *Aquilegia micrantha*
3. Leaves opposite
- A. Leaves simple
- i. Yellow flowers appear to be a single flower, but are composed of several flowers – **Asteraceae (Sunflower)** – *Flaveria*, *Thelesperma*
 - ii. Flowers with no petals
 - a. Flowers with 4-5 white, pink, or purple united tubular petaloid sepals – **Nyctaginaceae (Four O’Clock)**
 - b. female (pistillate) flowers and male (staminate) flowers, 0 petals; 0 sepals; green, brown, white, or yellow - **Euphorbiaceae (Spurge)** – *Euphorbia fendleri* (other Euphorbiaceae in herbs, alternate, simple, no petals)
 - iii. Flowers with 4 or 5 united petals, 4 or 5 sepals
 - a. 4 or 5 united lobed white to pink or rose petals in cymes, flowers tubular expanding at end, 4 or 5 lobed sepals – some **Gentianaceae (Gentian)** – *Centaurium*; (*Swertia albomargina* in herbs, whorled, simple, 4 petals, 4 sepals)
 - iv. Flowers with 5 united petals, 5 sepals
 - a. Flowers yellow, white, green, or pink; petals and sepals are folded down; 5 erect, colored corona hoods on top – **Asclepiadaceae (Milkweed)**
 - b. Flowers blue, purple, or white – **Lamiaceae (Mint)**–*Hedeoma drummondii*, *Marrubium vulgare*
 - c. Flowers with 5 united tubular white (or less often bluish or pink) petals; 5 lobed sepals, flowers in cymes - some **Polemoniaceae (Phlox)** – *Phlox austromontana*; (other members of this family in herbs, alternate, simple: *Gilia*; and subshrub, opposite, simple: *Leptodactylon watsonii*)
 - d. Flowers red, yellow, or blue, united petals, 5 sepals, at least partially united – **Scrophulariaceae (Figwort)** – *Mimulus*, *Penstemon* (others in herbs (basal, simple and alternate, simple))
 - e. Flowers pale blue to purple, borne in long dense spikes; 5 lobed united tubular petals, regular or slightly 2-lipped; 5 toothed sepals,

- usually tubular - **Verbenaceae (Vervain)** - *Verbena bracteata*
- v. Flowers with 5 to numerous petals, 5 sepals
 - a. 5 to numerous small (1/8" wide) pale greenish/white tubular partly united petals borne in clusters, 5 parted sepals, 5 stamens, reddish stems – **Apocynaceae (Dogbane)** - *Apocynum cannabinum*
 - b. 5 white or pink petals, 5 sepals, 4-10 stamens – **Caryophyllaceae (Pink)**
- B. Leaves compound
- i. Yellow flowers appear to be a single flower, but are composed of several flowers – **Asteraceae (Sunflower)** – *Bidens frondosa*
 - ii. Flowers with no petals, 4-5 white petaloid sepals – **Ranunculaceae (Buttercup)** – *Clematis ligusticifolia*
 - iii. Flowers with 5 petals, 5 sepals
 - a. Flowers pink – **Geraniaceae (Geranium)** (also listed in herbs – leaves basal, compound)
 - b. Flowers with 5 yellow petals; 5 sepals; plant lying flat on the ground, seeds with spines - **Zygophyllaceae (Caltrop)** - *Tribulus terrestris*
4. Leaves alternate
- A. Leaves simple
- i. Flowers appear to be a single flower, but are composed of several flowers; flowers can be yellow, white, purple, pink or greenish – some **Asteraceae (Sunflower)**
 - ii. Flowers with no petals
 - a. 5 whitish green sepals which come to a point, lance-shaped leaves – **Santalaceae (Sandalwood)**
 - b. 3 to 6 petaloid white, yellow, green, pink or red sepals, small. Some stems have swollen nodes, alternate/basal -**Polygonaceae (Buckwheat)** – *Eriogonum alatum* (yellowish, green), *Polygonum lapathifolium* (green, white, or pink), *Rumex hymenosepalus* (pink), and *Rumex venosus* (red) (others in shrubs, subshrubs, and herbs-basal, simple)
 - c. leaves bluish, small, 2-5 green, yellow or brown sepals – **Chenopodiaceae (Goosefoot)**
 - d. flowers in axillary clusters; 5 sepals; 3 conspicuous green or red to purple bracts -**Amaranthaceae (Amaranth)** – *Amaranthus blitoides*
 - e. female (pistillate) flowers and male (staminate) flowers, 0 petals; 0-8 sepals; green, brown, white, or yellow - **Euphorbiaceae (Spurge)** – most Euphorbiaceae – (*Euphorbia fendleri* has opposite leaves)
 - iii. Flowers with 3 petals, 3 sepals
 - a. 3 brownish, purple, green or yellowish green petals (free or united, one petal differing from the other two in form, size, and coloration, often forming a lip or spur), 180 degree twist in the flower causing the

- upper petal to look like the lower one; 3 sepals; sepals either green and sepaloid or colored and petaloid; Leaves often sheathing, parallel veined; monocot – **Orchidaceae (Orchid)**
- iv. Flowers with 4 petals, 4 sepals
 - a. White, yellow, or pink small to medium petals (not papery) – **Brassicaceae (Mustard)**
 - b. Flowers with 4 white, yellow, or pink large papery clawed petals, 4 sepals, lower leaves can be opposite or basal – **Onagraceae (Evening-Primrose)**
 - v. Flowers with 4 or 5 united tubular red, green, or pink or purple petals; 4 or 5 sepals, at least partially united – **Scrophulariaceae (Figwort)** - *Castilleja*, *Cordylanthus wrightii*, (others in herbs (basal, simple and opposite, simple)
 - vi. Flowers with 4-6 yellow petals (generally 5) open only in sunshine, soon close; 2 united sepals - **Portulacaceae (Purslane)** - *Portulaca oleracea*
 - vii. Flowers with 5 united petals, 5 sepals
 - a. Flowers small yellow, pink, white, red, or purple. (Sometimes lower leaves opposite in *Cryptantha*) – most **Boraginaceae (Borage)**: *Cryptantha*, *Cynoglossum*, *Heliotropium*, *Lappula*, *Lithospermum* – (*Tiquilia* in subshrubs)
 - b. Flowers purple, blue, or white, not papery; flowers grouped in S-shaped cymes, rarely solitary; the lower leaves sometimes opposite in *Phacelia* – **Hydrophyllaceae (Waterleaf)**
 - c. Flowers with 5 united tubular white to violet or yellowish funnelform petals (some are ill-scented and open in the evening); 5 lobed tubular sepals; large leaves– **Solanaceae (Potato)**
 - d. Flowers with 5 united funnelform white, blue, lavender, purple or rose petals, 5 separate sepals - **Convolvulaceae (Morning Glory)**
 - f. Flowers with 5 united petals, 5 lobed sepals, flowers are funnelform, scarlet, lavender, blue, white, yellow, or pink - some **Polemoniaceae (Phlox)** - *Gilia* (others in herbs, opposite, simple: *Phlox*; and subshrub, opposite, simple: *Leptodactylon watsonii*)
 - g. Flowers with 5 united tubular yellow petals; 4 or 5 sepals, at least partially united – **Scrophulariaceae (Figwort)** – *Linaria dalmatica* (leaves alternate, simple); *Verbascum thapsus* (leaves basal and alternate) (others in herbs -basal, simple and opposite, simple)
 - viii. Flowers with 5 distinct petals, 3 to 5 sepals
 - a. Flowers yellow or bluish-purple, flowers papery and short –lived, 5 distinct sepals – **Linaceae (Flax)**
 - b. Flowers with 5 orange or red petals, 3 to 5 sepals – **Malvaceae (Mallow)**
 - c. 5 bluish-white tube-shaped partly united petals borne in terminal clusters, 5 parted sepals, 5 stamens - **Apocynaceae (Dogbane)** – *Amsonia tomentosa*
 - d. 5 distinct yellow petals, 4-5 sepals, petaloid stamens - **Loasaceae (Stickleaf)** – *Mentzelia albicaulis* (other species at Arches NP have 10

- petals)
- e. Flowers with 5 unequal petals, yellow, purple veined and commonly purple dorsally, the lowermost enlarged and spurred; 5 separate sepals, distinct or nearly so - **Violaceae (Violet)** - *Viola purpurea* var. *venosa*
 - ix. Yellow flowers with 5-10 distinct petals, 5 sepals, numerous petaloid stamens - **Loasaceae (Stickleaf)** – *Mentzelia albicaulis*: 5 yellow petals; *Mentzelia multiflora*: 10 yellow petals; the inner 5 somewhat shorter and narrower; *Mentzelia pterosperma*: 10 petals; *Mentzelia pumila*: 10 petals;
- B. Leaves compound
- i. Flowers with 4 petals, 2 to 5 sepals
 - a. Flowers with 2 unlike sets of 2 purple or blue petals, 5 purple petaloid sepals – **Ranunculaceae (Buttercup)** – *Delphinium* (Larkspur)
 - b. Flowers with 4 yellow petals, 2 sepals – **Fumariaceae (Fumitory)**
 - c. Flowers with 4 yellow petals, 4 sepals – **Capparaceae (Caper)**
 - d. Flowers with 4 white, cream or yellow petals, 4 sepals – **Brassicaceae (Mustard)**– some *Descurainia*, and *Nasturtium officinale*
 - ii. Flowers with 5 petals, 5 sepals
 - a. 5 blue, purple, pink, white, yellow or inconspicuous petals distinct or lower 2 united, sepals united – **Fabaceae (Pea)** – except *Parryella* and *Robinia*